

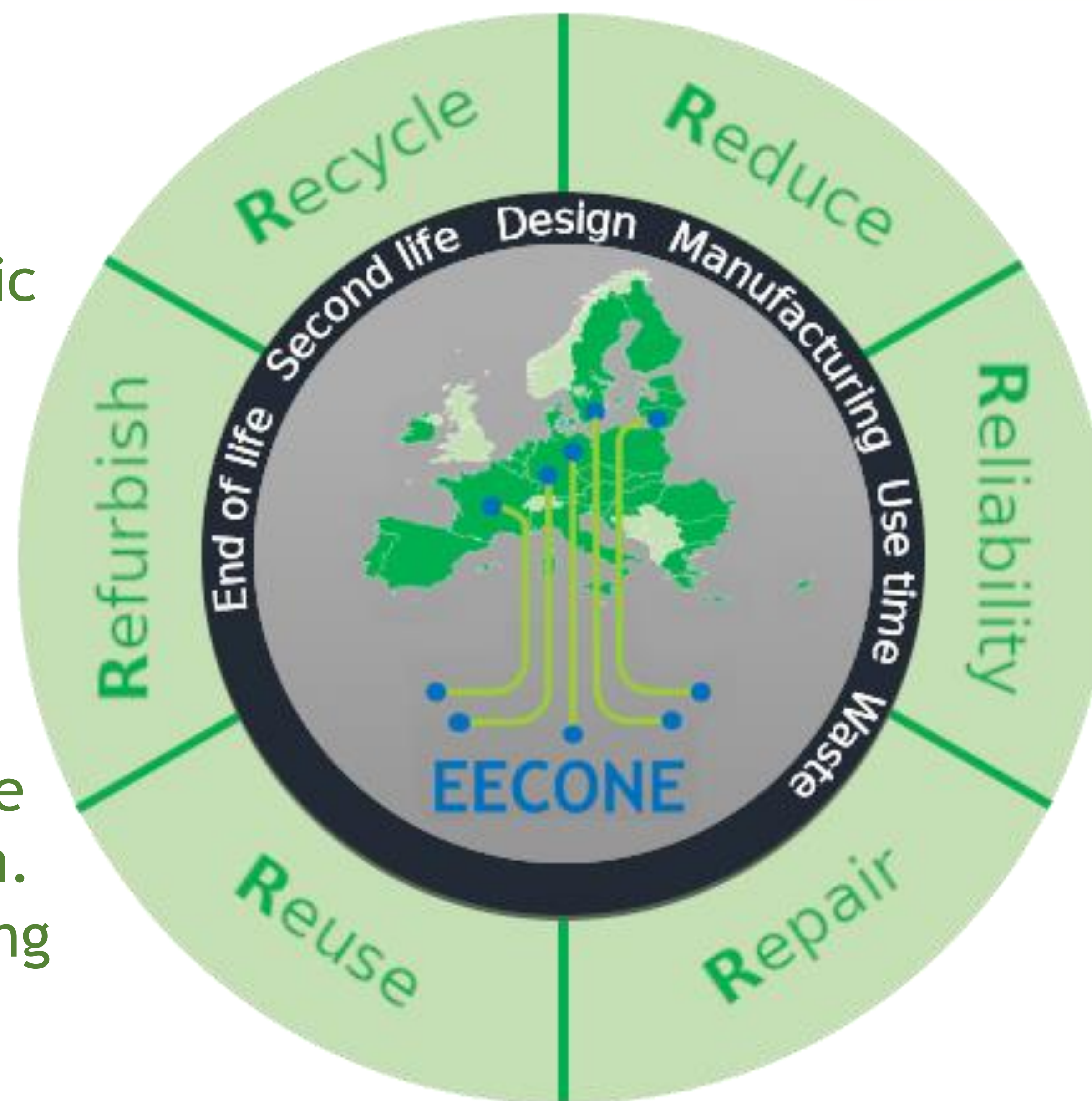
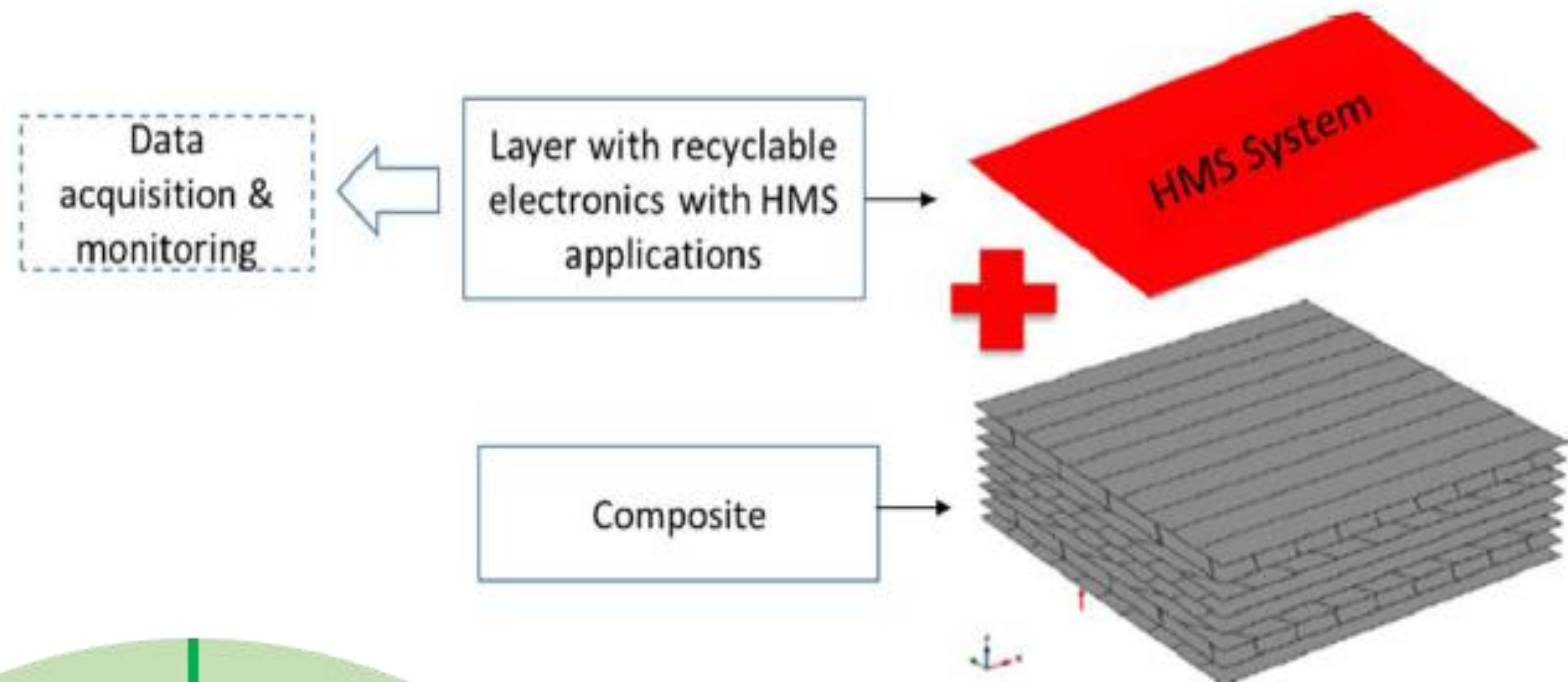
UC-09: Sensing electronics for health management system in an aeronautical structural component

Main objectives

1. Recyclability of electronic with flexible and bio-degradable substrates,
2. Safer aero structures with structural health monitoring,
3. Longer life and reduced waste.

Key contributions

- UNIPG and LGE
 - Selection of technologies.
 - Design, optimization and characterization of electronic circuits and sensors.
 - Implementation of sensor demonstrator
- LDO
 - Manufacturing and testing of hosting aeronautical composite structure with HMS integration.
 - Redesign of structure and long term life cycle simulation studies using data acquired using HMS.



Link to Milestones and Deliverables

- M(7) "Technical activities are completed and demonstrated in the use cases"
- M(20) "Use case definitions and specifications for material"
- M(22) "Poc of substrates and inks for use cases"
- M(23) "Integration of developed sustainable materials into technology demonstrator"

Time plan

Main Activities	Time line											
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
1 Sensor Types and Sensor Specs. Definition	█	█										
2 Analysis of available materials and methods to be exploited in the defined sensors		█	█	█								
3 Characterization of Suitable Ink & Substrates in accordance with application needs				█	█	█						
4 Design & Implementation of Sensor Demonstrators						█	█	█	█	█		
5 Characterization and Analysis of Achieved Results									█	█	█	█